

REMARKS

In this response, claims 1, 2, 12, and 13 have been amended and claims 51–54 have been added. Claims 22–50 were previously canceled in response to a restriction requirement. Accordingly, claims 1–21 and 51–54 remain in the case. Further examination and reconsideration of the presently claimed application are respectfully requested.

Section 102 Rejections

Claims 1-6, 10-15, and 18-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,922,058 to Rodrigues (hereinafter “Rodrigues”). Claims 12-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,001,303 to Coleman et al. (hereinafter “Coleman”). The standard for “anticipation” is one of fairly strict identity. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. Of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), MPEP 2131. None of the cited art discloses all limitations of the currently pending claims, some distinctive limitations of which are set forth in more detail below.

None of the cited art teaches or suggests a conductive member including a conductor having an opening adapted to allow insertion and movement of an insulated cable and to confine an insulated wire or cable in directions perpendicular to its longitudinal axis, where the opening is oriented with respect to opposed parallel surfaces of the conductor such that a fastener inserted through holes in a pair of parallel surfaces of the conductor would not penetrate the opening.
Amended claim 1 recites in relevant part:

A conductive member, comprising: a conductor having a pair of opposed parallel surfaces . . . an opening formed within the conductor . . . wherein the opening is adapted to allow an insulated wire or cable to be inserted into and moved along the length of the opening, wherein the opening is adapted to sufficiently surround an insulated wire or cable, in directions perpendicular to its longitudinal axis, that the wire or cable is confined within the opening in directions perpendicular to its longitudinal axis, and wherein the opening is oriented with respect to the opposed parallel surfaces such that a screw or other fastener inserted through holes in both parallel surfaces of the conductor would not penetrate the opening.

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Support for these limitations may be found, for example, on page 13, line 22 to page 14, line 8 (feeding of cable, guide kept away from screws); page 8, lines 19-21 (confinement and feeding of cable); page 11, lines 19-22 (cable guide kept away from screws); page 13, lines 6-10 (confinement of cable); page 17, lines 20-24 (confinement of cable, opening separate from area with screws); and in Figs. 2a-7.

Rodrigues teaches a crimp connector for connecting electrical conductors together. Figs. 2 and 3 of Rodrigues are cross-sectional views of the connector before crimping, while Figs. 4 and 5 are cross-sectional views of the connector and the connected conductors after crimping. (Rodrigues—col. 3, line 50 - col. 4, line 43). To the extent that the uncrimped connector of Figs. 2 and 3 could be viewed as having an opening within a conductor, the opening is not adapted to sufficiently surround an inserted wire or cable that the cable is confined in directions perpendicular to its longitudinal axis. Because the top of the uncrimped connector is open, a wire or cable placed within connection nest 26 would not be confined but would rather be free to come out of the top of the connector. The only way that a wire or cable would be confined by the structure of Figs. 2 and 3 would be if it were so large as to be in contact with sidewalls 22 and 24 and bottom wall 16 simultaneously. If the wire or cable were this large, however, the opening confining it would have to include the entire area between sidewalls 22 and 24. This opening would necessarily be penetrated by a fastener inserted through the parallel surfaces of the conductor. The claim limitations described above can therefore not be met by the uncrimped structure of Figs. 2 and 3. To the extent that the crimped connector structures shown in Figs. 4 and 5 of Rodrigues could confine an insulated wire or cable, these structures still would not meet the limitations of claim 1 because they do not allow insertion of a cable or its movement along the conductor. Instead, crimping to form the connector structures of Rodrigues holds conductors tightly together so that they cannot be moved. (Rodriguez—col. 4, lines 12-20). Therefore, none of the structures taught by Rodrigues teaches the above limitations of claim 1.

Coleman also fails to teach these limitations of claim 1. Coleman teaches an electrical cable with a tubular metal sheath. Assuming that the sheath could correspond to the claimed conductor with opposed parallel surfaces, the entire inside of the sheath would correspond to the claimed opening in the conductor. This opening could therefore not be oriented in such a way that a fastener inserted through the parallel surfaces of the conductor would not penetrate the opening. For the above reasons, neither Rodrigues nor Coleman anticipates claim 1.

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Furthermore, there is no teaching, suggestion, or motivation to modify the teachings of the cited art to obtain the conductive member of claim 1. In fact, the uncrimped connector in Figs. 2 and 3 of Rodrigues could not be modified to have an opening adapted to confine an insulated wire or cable, because that would defeat the connector's design of having a nest open at the top to accept a variety of conductor shapes for crimping together. (Rodrigues--col. 3, lines 24-28 and lines 52-57). Similarly, the crimped connector shown in Figs. 4 and 5 of Rodrigues could not be modified to allow insertion and movement of an insulated cable, because this would defeat the purpose of the connector -- to form an airtight compression connection holding two conductors tightly together. (Rodrigues--col. 1, lines 58-64; col. 4, lines 12-20). Nowhere in the cited art is there a teaching or suggestion to modify the structure of Coleman to include an opening oriented such that insertion of a fastener through holes in each of a pair of opposed parallel surfaces would not penetrate the opening. In fact, such a modification would likely defeat the purpose of forming a cable "configured to enable selective bending generally about the major and minor axes of the sheath cross-section." (Coleman--col. 1, lines 47-68). Because none of the cited art anticipates claim 1, and there is no teaching, suggestion or motivation to modify the cited art to achieve the claimed structure, claim 1 is patentably distinct over the cited art.

None of the cited art teaches or suggests a conductive member including a monolithic conductor and a cable guide arranged inside the conductor, where the cable guide is adapted to allow insertion and movement of an insulated cable and to confine an insulated wire or cable in directions perpendicular to its longitudinal axis, and where the cable guide is oriented with respect to opposed parallel surfaces of the conductor such that a fastener inserted through holes in a pair of parallel surfaces of the conductor would not penetrate the cable guide. Claim 12 recites in relevant part:

A conductive member, comprising: a monolithic conductor having a pair of opposed parallel surfaces; and a cable guide arranged inside the conductor . . . wherein the guide is adapted to allow an insulated wire or cable to be inserted into and moved along the length of the guide, wherein the guide is adapted to sufficiently surround an insulated wire or cable, in directions perpendicular to its longitudinal axis, that the wire or cable is confined within the guide in directions perpendicular to its longitudinal axis, and wherein the guide is oriented with respect to the opposed parallel surfaces such that a screw or other fastener inserted through holes in both parallel surfaces of the conductor would not penetrate the guide.

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Support for these limitations may be found, for example, on page 13, line 22 - page 14, line 8 (feeding of cable, guide kept away from screws); page 8, lines 19-21 (confinement and feeding of cable); page 11, lines 19-22 (cable guide kept away from screws); page 13, lines 6-10 (confinement of cable); page 17, lines 20-24 (confinement of cable, opening separate from area with screws); and in Figs. 2a-7.

Coleman teaches an electrical cable with a tubular metal sheath, as noted above. The Office Action identified the metallic sheath 12 in Coleman as the claimed conductor and the cable bedding tape 28 of Coleman as the claimed cable guide. Bedding tape 28 is not a cable guide in the sense of original claim 12, in that it is not adapted to maintain an insulated wire or cable in a straight orientation, as originally claimed. Although the tape may keep multiple wires arranged next to one another, it cannot keep them straight; in fact, a main point of the invention in Coleman is that the resulting cable is to allow selective bending. (Coleman--col. 3, lines 36-40; col. 1, lines 47-68). Furthermore, there is no support for the statement in the Office Action that bedding tape 28 is attached to sheath 12, as would be required for meeting the limitation of claim 17 as originally presented. In any case, bedding tape 28 certainly does not meet the above limitations of the cable guide in present claim 12. Rather than being a part of the conductive member into which an insulated wire or cable can be inserted and moved along, the bedding tape in Coleman has to be applied to the cable rather than have the cable fed into it. (Coleman--col. 3, lines 36-40). Coleman alternatively teaches "an extruded jacket covering or the like" surrounding the cable, but again, this is a covering on the cable rather than a guide into which a cable may be inserted and moved along. (Coleman--col. 3, lines 40-42). In addition to the failure of bedding tape 28 to meet the limitations of the claimed guide, the sheath itself cannot correspond to the guide because the sheath cannot meet the limitation that the guide be oriented such that a fastener inserted through the parallel surfaces of the conductor would not penetrate the guide. Coleman therefore does not anticipate claim 12.

Rodrigues teaches a crimp connector, as described further above in the discussion of claim 1. In a manner similar to that described above for the opening in claim 1, no embodiment of Rodrigues includes a cable guide that both confines a cable in directions perpendicular to its longitudinal axis and allows a cable to be inserted into and moved along the guide. Rodrigues therefore does not anticipate claim 12. There is furthermore no teaching, suggestion or motivation to modify the cited art to obtain the conductive member of claim 12. Claim 12 is therefore asserted to be patentable over the cited art.

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Because independent claims 1 and 12 are not anticipated by the cited art, removal of the 102(b) rejections of these claims and their dependent claims 2-6, 10-11, and 13-21 is respectfully requested.

Section 103 Rejection

Claims 7-9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Rodrigues in view of U.S. Patent No. 5,886,672 to Brune et al. (hereinafter "Brune"). To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), MPEP § 2143.01. As such, the present claims are nonobvious in view of the cited art.

Brune teaches a collapsible antenna with flexible elements. In the embodiment of Fig. 4 of Brune, cited in the Office Action, Brune teaches forming slots in the antenna boom for mounting of the flexible elements, so that the boom does not need to have a flat surface for mounting of the elements. (Brune--col. 5, lines 26-39). Contrary to a statement in the Office Action, the slots 13 in Brune do not appear to be spaced with a logarithmically increasing spacing. No support is provided for the statement in the Office Action that one of ordinary skill would find it obvious to combine the slots of Brune with the connector of Rodrigues, apparently to improve the performance of the conductive member (connector) of Rodriguez. How cutting slots into the connector of Rodrigues would improve its performance is not at all clear. Such slots would likely cut through the conductors that the connector of Rodrigues is intended to hold together, rendering them useless. At the very least, the slots would reduce the resistance of the connector to corrosion from dirt and water. Such resistance to corrosion is a major goal of the Rodrigues connector. (Rodrigues--col. 1, lines 47-63; col. 4, lines 12-20).

In any case, current claims 7-9 are not obvious in view of any combination of the cited art. These claims depend from claim 1 and, as discussed above, none of the cited art teaches certain limitations of claim 1. Furthermore, there is no teaching, suggestion or motivation to modify the cited art to obtain the conductive member of claim 1. Accordingly, removal of the 35 U.S.C. § 103(a) rejection of claims 7-9 is respectfully requested.

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Added claims 51-54

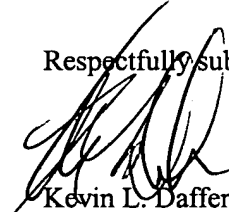
Claims 51-54 have been added. Claims 51 and 52 are dependent from claim 1 and are therefore patentable for at least the same reasons that claim 1 is, as discussed further above. Claims 53 and 54 are dependent from claim 12, and are patentable for at least the same reasons that claim 12 is. Allowance of these added claims is therefore requested.

CONCLUSION

This response constitutes a complete response to all issues raised in the Office Action mailed on June 4, 2003. Moreover, the prior art made of record but not relied upon is not considered pertinent to the presently claimed case. Accordingly, in view of the remarks traversing the rejections, Applicants assert that pending claims 1-21 and 51-54 are in condition for allowance. If the Examiner has any questions, comments, or suggestions, the undersigned attorney earnestly requests a telephone conference.

The Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Conley Rose, P.C. Deposit Account No. 03-2769/5633-00100.

Respectfully submitted,



Kevin L. Daffer
Reg. No. 34,146
Attorney for Applicant(s)

Conley Rose, P.C.
P.O. Box 684908
Austin, TX 78768-4908
Ph: (512) 476-1400
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